REQUEST FOR WSDOT IN-TRAINING PLAN

Approved: *Niki Pavlicek, Class & Comp Mgr* Date: *2/14/2012*

HR contact: Stephanie Price Tel #705-7807 Date: 2/7/2012

REQUEST IS FOR: (Check applicable boxes and fill in blanks as appropriate)

[ ] All positions in this class. [X] Position(s) specified below.
[X] Full-time position. [ ] Part time position. List % _____
[ ] One time use only. [ ] Continuous use.

Position number(s): 00243
Classification: Transportation Engineer 4, In-training
Incumbent Name(s): (If position is vacant, please indicate:) VACANT

Do Incumbent(s) agree with this Plan? [ ] Yes [ ] No [X] No incumbent(s)

CLASS LEVELS AND DURATION: (Fill in applicable blocks. Add more as needed.)

CLASS LEVEL	CLASS CODE	CLASS TITLE	SALARY RANGE	DURATION OF IN-TRAINING PERIOD
ENTRY	530L	Transportation Engineer 2	57	12 months
INTERMEDIATE (IF USED)	530M	Transportation Engineer 3	61	12 months
GOAL	530N	Transportation Engineer 4	65	NOTE: Position classification and goal class must match.

TYPE OF TRAINING TO BE CONDUCTED: (check box and/or fill in block as appropriate)

[X] On-the-Job Training (OJT) [X] Classroom. [X] Field Instruction.

[X] Training course(s) conducted by _____. List course name(s) and duration(s) _____SEE ATTACHED_____.

PHASE ONE
Development Requirements for In-Training Advancement from TE2 to TE3

1. Complete 12 months as a TE2 in this position

2. Completion of the following formal training (if available during the training period).

Course Code	Course Title	Hours	Status
ADH	CN: Contract Plans Reading – Self Study	40	Mandatory
C3A/B	GIS: Introduction to ArcGIS and the GIS Workbench	16	Mandatory
C3E	GIS: Working with ArcGIS Spatial Analyst	24	Mandatory
DBH	NHI: BR-Stream Stability and Scour at Highway Bridges	24	DOA

DOA – Depending on Availability during In-Training Period

3. Demonstrate proficiency in the following areas:
   3.1 Hydraulic analysis with HEC-RAS and other 1D hydrodynamic numerical software
   3.2 Gaining familiarity with countermeasure design for bank erosion, hydraulic structure scour and fish passage projects for conceptual designs
   3.3 Developing conceptual hydraulic designs based on site reconnaissance, utilizing WSDOT and FHWA hydraulic design criteria
   3.4 Working with the Regions in developing the preservation (P3) Major Drainage Program
   3.5 Assisting Hydraulics Division and Headquarters Program Management in prioritization of (P3) Major Drainage Program projects
   3.6 Responding to Region requests for site reconnaissance, hydrologic, hydraulic and scour analyses as directed by immediate supervisor
   3.7 Attending and participating in routine Headquarter and Regional Hydraulic meetings
   3.8 WSDOT Primavera and TEIS
   3.9 Utilizing Microstation, In-Roads and ArcMap programs for design, obtaining needed data, and developing exhibits for both field work and final reports.
   3.10 Prepare clear, concise basis of design reports/memorandums documenting hydrologic, hydraulic, river engineering and/or scour analyses. Document methods, assumptions, thought process, and calculations in the Division's files for assigned projects/tasks.

On-the-job training (OJT) will be provided in each of the areas where proficiency is required. Proficiency will be evaluated using actual projects which include elements that require skills in each of these areas, if such projects are available during the training period. For those skills which cannot be evaluated based on elements available, problems which test those skills may be provided to the incumbent.

Proficiency will be defined as demonstrated competency to identify the information and input data to complete hydrologic and hydraulic related projects and know where to obtain the information to complete the project using accepted engineering procedures and practices with few, if any, errors while accounting for effects, such as constructability, that may have on project

design. The incumbent will need to clearly communicate the design to supervisory personnel within the Division and to those who must implement it.

4. The candidate will acquire an Engineering In – Training certificate in the State of Washington.

Phase Two

Development Requirements for In-Training Advancement from TE3 to TE4

1. Complete 12 months as a TE3 in this position

2. Completion of the following formal training (if available during the training period).

Course Code	Course Title	Hours	Status
TBD	Enhanced Leadership for WSDOT	TBS	DOA
	River Engineering for Highway Encroachments	24	DOA
	Countermeasure Design for Bridge Scour and Stream Instability	24	DOA
	Surface Water Modeling System with Flod2DH and SMS	32	DOA

DOA – Depending on Availability during In-Training Period

3. Demonstrate proficiency in the following areas:

3.1 Perform project management coordination and tracking of multiple assigned projects resulting in timely completion of projects that meet the needs of the Division's customers.
3.2 Independently perform Hydraulic analysis with HEC-RAS or FESWMS and other 1D/2D hydrodynamic numerical software
3.3 Independently manage and develop hydraulic designs based on site reconnaissance, utilizing WSDOT and FHWA hydraulic design criteria
3.4 Complete familiarity with countermeasure design for bank erosion, hydraulic structure scour and fish passage for conceptual designs
3.5 Independently working with Regions in developing the preservation (P3) Major Drainage Program
3.6 Responding to Region requests for site reconnaissance, hydrologic, hydraulic and scour as directed by immediate supervisor to independently estimate level of effort, hours and costs for designing and/or analyzing assigned material as well as tracking and reporting actual project progress and expenditures.
3.6 Attending and participating in routine Headquarter and Regional Hydraulic meetings
3.7 Independently utilize WSDOT Primavera and TEIS
3.8 Independently utilizing Microstation, In-Roads and ArcMap programs for design, obtaining needed data, and developing exhibits for both field work and final reports.

3.9 Prepare clear, concise basis of design reports/memorandums documenting hydrologic, hydraulic, river engineering and/or scour analyses. Document methods, assumptions, thought process, and calculations in the Division's files for assigned projects/tasks.

3.10 Independently function during construction development to assess conformance with design objectives. Troubleshoot hydraulic related construction problems and demonstrate the ability to develop solutions. Assist the State Construction Office in the evaluation of changed conditions or plan errors and assist in the development of solutions.

On-the-job training (OJT) will be provided in each of the areas where proficiency is required. Proficiency will be evaluated using actual projects which include elements that require skills in each of these areas, if such projects are available during the training period. For those skills which cannot be evaluated based on elements available, problems which test those skills may be provided to the incumbent.

Proficiency will be defined as demonstrated competency to identify the information and input data to complete hydrologic and hydraulic related projects and know where to obtain the information to complete the project using accepted engineering procedures and practices with few, if any, errors while accounting for effects, such as constructability, that may have on project design. The incumbent will need to clearly communicate the design to supervisory personnel within the Division and to those who must implement it.

4. The candidate will acquire a license in Civil Engineering from the State of Washington.

Method to Evaluate Progress through Plan:

The supervisor will establish performance standards for the work assigned to this position. These standards will be communicated to the incumbent.